

# Graded Assessment – Socket API & Digital Transmissions

Quiz, 10 questions

**10/10 points (100%)**

## Congratulations! You passed!

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point

1.

In BSD socket API, which call is usually used for transmitting data in the connectionless mode?

- ☐ accept()
- ☐ connect()
- ☒ sendto()

**Correct**

Correct. Refer to Berkeley Sockets API - I lecture

- ☐ None of the above

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point

2.

Which of following statement about TCP/UDP sockets is wrong?

- ☐ TCP socket is stream oriented
- ☐ UDP socket is block oriented
- ☒ TCP is faster than UDP

**Correct**

when the low level parts of the TCP “stream” arrive in the wrong order, resend requests have to be sent, and all the out of sequence parts have to be put back together requiring more work while UDP does not require ordering or tracking of messages which makes it faster.



All of the above

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3.

Which of following are commonly used as digital communication medium?



All of the above

**Correct**

Some of the commonly used physical transmission media are twisted copper cable, good quality coaxial cable and radio frequency bands.



Coaxial cable



Twisted pair



Optical fiber

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point

4.

Consider a network link that has distance of 100 meters, and signal traverses at the speed of light in cable  $2.5 \times 10^8$  meters per second. The link has transmission bandwidth of 100 megabits/second ( $100 \times 10^6$  bits per second). The packet size is 400 bits. What is the signal propagation delay?

 $4 \times 10^{-6}$  seconds $4 \times 10^{-7}$  seconds**Correct**

Correct. Refer to Digital Transmission Fundamentals lecture



None of the above

 $4 \times 10^{-9}$  seconds1 / 1  
point

## 5. Graded Assessment – Socket API & Digital Transmissions

Consider a network link that has distance of 100 meters, and signal traverses at the speed of light in cable,  $2.9 \times 10^8$  meters per second. The link has transmission bandwidth of 100 megabits/second ( $100 \times 10^6$  bits per second). The packet size is 400 bits. What is the packet transmission delay?

10/10 points (100%)

- ☐  $4 \times 10^{-9}$  seconds
- ☐  $4 \times 10^{-7}$  seconds
- ☒  $4 \times 10^{-6}$  seconds

**Correct**

Correct. Refer to Digital Transmission Fundamentals lecture

- ☐ None of the above



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point

6.

An API allows application programs to access certain resources through a predefined interface?

- ☒ True

**Correct**

Correct. Refer to Berkeley Sockets API - I lecture

- ☐ False



1 / 1  
point

7.

In transport protocol, which of the following statements is true for User Datagram Protocol

- ☒ It enables best-effort connectionless transfer of individual block of information

**Correct**

Correct. Refer to Berkeley Sockets API - I lecture

- ☐ It enables connection-oriented reliable transfer of individual block of information
- ☐ It enables best-effort connectionless reliable transfer of a stream of bytes
- ☐ None of the above

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8.

Which of the following sentences are true for connectionless stream mode of service

☐

No setup overhead and delay

**Correct**

Correct. Refer to Berkeley Sockets API - I lecture

☐

Destination address with each block

**Correct**

Correct. Refer to Berkeley Sockets API - I lecture

☐

Send/receive to/from multiple peer processes

**Correct**

Correct. Refer to Berkeley Sockets API - I lecture

☐

Multiple write/read between peer processes

**Un-selected is correct**1 / 1  
point

9.

In transmission delay, in order to reduce the number of bits in a message we use data compression

☒

True

**Correct**

Correct. Refer to Digital Transmission Fundamentals lecture

☐

False

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Which of the following is true of data compression algorithms

☐ Modify data headers

Un-selected is correct

☐ Recover original information exactly

Correct

Correct. Refer to Digital Transmission Fundamentals lecture

☐ Represent the information using fewer bits

Correct

Correct. Refer to Digital Transmission Fundamentals lecture

☐ Recover information approximately

Correct

Correct. Refer to Digital Transmission Fundamentals lecture

